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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:

Damian Porcari

Serial No: 09/621,393

Group Art Unit: 2175

Filed: 07/21/00

Examiner: Rimell, Samuel G.

Title: THEME-BASED SYSTEM AND METHOD FOR  
CLASSIFYING DOCUMENTS

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BRIEF ON APPEAL

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Sir:

The following Appeal Brief is resubmitted in response to the Office Communication dated April 15, 2004, together with a Petition for One-Month Extension of Time.

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## **I. Real Party in Interest**

The real party in interest in this matter is Ford Global Technology, LLC, which is a wholly owned subsidiary of Ford Motor Company both in Dearborn, Michigan (hereinafter "Ford").

## **II. Related Appeals and Interferences**

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

## **III. Status of the Claims**

Claims 1-18 stand rejected in the Final Office Action. A copy of the claims on appeal is attached as an Appendix.

## **IV. Status of Amendments Filed After Final**

There has been one response after final, which has been denied entry for raising new issues. The status of the claims in the Appendix are in the form that existed at the time of the final rejection.

## **V. Summary of the Invention**

The present invention relates to a system for classifying documents. The method is generally shown in flowchart form in Figure 4, the corresponding text of which begins on Page 8. Claim 1 is directed to a method of classifying a document using a classification system that includes the steps of defining a plurality of classes (32, Fig 4), identifying source documents of each of said plurality of classes (36, Fig. 4), generating a classification theme score for each of said classes from the source documents for each of the plurality of classes, (38, Fig. 4), entering an unclassified document (20 of Fig. 2) into the system (40 Fig. 4), generating an unclassified document theme score corresponding to said unclassified document (44, Fig 4), and classifying the unclassified document into one of said plurality of classes when the unclassified document theme score is substantially equal to the classification theme score (50, Fig. 4).

Claim 8 is similar to claim 1 except that the wording has been changed to include a plurality of classes and a plurality of subclasses and their associated theme scores.

Claim 13 is similar to claim 1 except that claim 13 is a system for classifying documents. The system includes a document input for entering an unclassified document. The

input is illustrated as Fig. 16 in Fig. 1. Examples of an input device may include the internet or a scanner. A document storage memory is also included in the system. The document storage memory is shown as reference numeral 14 of Fig. 1. A controller shown in Fig. 1 as reference numeral 12 is coupled to the document input and the document storage memory. The controller is programmed to classify documents into a plurality of classes by identifying source documents for each of the plurality of classes, generating a classification theme score categorizing documents into said classes, and classifying the document into one of a plurality of classes when an unclassified document theme score is substantially similar to the classification theme score. The controller is programmed to perform similar steps to that of claim 1. Thus, claim 13 is believed to be allowable for similar reasons set forth with respect to claim 1.

## **VI. Issues**

The following issues are presented in this appeal, each of which correspond directly to the Examiner's final ground for rejection and the Final Office Action:

Whether claims 1-12 are anticipated under 35 U.S.C. §102(b) by Examiner Handbook to the U.S. Patent Classification System, Revised February 1999 (Examiner Handbook).

Whether claims 13-18 are unpatentable under 35 U.S.C. §103(a) as being unpatentable over the Examiner Handbook.

## **VII. Grouping of Claims**

The rejected claims have been grouped together by the Examiner in the rejection. The Appellant states, however, that each of the rejected claims stands on its own recitation and is separately patentable for the reasons set forth in detail below.

## **VIII. Argument**

### **THE REJECTION OF CLAIMS 1-12 UNDER 35 U.S.C. §102(b)**

Claim 1 is directed to a method for classifying documents that includes defining a plurality of classes, identifying source documents of each of the plurality of documents, generating a classification theme score for each of the classes from the source documents for each of the plurality of classes. The method further comprises entering an unclassified system into the document, generating an unclassified document theme score corresponding to the unclassified document, and classifying the unclassified document when the unclassified theme

score is substantially equal to the classification theme score. The underlying emphasis of this application is the automation of the classification process. Therefore, the steps of generating a classification theme score are recited. Also, generating an unclassified document theme score is also provided. As described on the bottom of page 7, the source document or source documents and, more particularly, the words therein are used to develop a theme score for the class and subclass. The theme score represents a particular value for the subject matter of the class. Various known methods may be used to generate the theme value. For example, numerous algorithms for natural language searching may be used. The natural language search terms are developed from the source documents. The natural language terms are arithmetically weighted according to known methods of selecting the importance of the words to obtain the theme score.

The Examiner points to the Examiner Handbook for the teaching of a classification theme score in the form of a class number. Applicant agrees that a class number is assigned to each of the patents. However, the class is not a *theme score* based upon the content of the documents. That is, there is no teaching of "generating an unclassified document theme score corresponding to said unclassified document." It is not until someone reviews the patent or patent application that it is decided into which class the document should be placed. This is a manual process and thus a theme score based upon the document is not generated. Merely, a classification number is assigned to the document. The patent process is a manual process and is likely to result in more errors than that of the present invention which uses a classification theme score for comparison. Although the classification corresponds to the subject matter, no theme score is generated according to the present invention. Further, no step of classifying the unclassified document into one of the plurality of classes when the unclassified document theme score is substantially equal to the classification theme score. Because no theme scores are developed, the steps of classifying the unclassified document into one of the plurality of classes when the unclassified document theme score is substantially equal to the classification theme score is not taught or suggested in the Examiner Handbook.

Claim 2 is also believed to be independently patentable for including the additional steps of reviewing documents in each of the plurality of classes, determining misclassified documents and assigning a theme score to the misclassified documents. This is not taught or suggested in the Examiner's Handbook.

Claim 3 is also believed to be independently patentable since it includes the further steps of weighting a predetermined section of the unclassified document. This is not taught or suggested in the Examiner's Handbook.

Claim 4 is also believed to be independently patentable for further defining the predetermined section.

Claim 5 is also believed to be independently patentable for including the step of forming a first and second subclass from a class. This is not taught or suggested in the Examiner's Handbook.

Claim 6 is further dependent upon claim 5 and is also believed to be independently patentable for including the step of identifying a selected group of related documents from a class. This also is not taught or suggested in the Examiner's Handbook.

Claim 7 is also believed to be independently patentable for including reclassifying a plurality of classes into a plurality of new classes. Several steps are recited in claim 7 and include identifying source documents for each of the plurality of classes, generating a respective plurality of new class theme scores for each of the plurality of new classes and reclassifying the documents within the plurality of classes when the theme score is substantially similar to the new class theme score.

Claim 8 is also believed to be independently patentable. Claim 8 is an independent claim similar to claim 1 but further recites establishing a plurality of classes and a plurality of subclasses. Each of the classes and subclasses have source documents and theme scores similar to that of claim 1. Claim 8 is believed to be allowable for the same reasons set forth above with respect to claim 1. That is, each of the elements of claim 8 are not taught or suggested in the Examiner's Handbook.

Claims 9, 10, 11, and 12 ultimately depend from claim 8.

Claim 9 is believed to be independently patentable since it includes similar steps to claim 2, which are not taught or suggested in the Examiner's Handbook. Claim 10 is also believed to be independently patentable since it is similar to claim 3 described above. This is not taught or suggested in the Examiner's Handbook.

Claim 11 depends from claim 10 and further recites specifics on the predetermined section. This is not taught or suggested in the Examiner's Handbook and thus, claim 11 is also believed to be independently patentable.

Claim 12 depends from claim 8 and is also believed to be independently patentable for the same reason set forth above with respect to claim 7.

**THE REJECTION OF CLAIMS 13-18 UNDER 35 U.S.C. §103(a)**

Claim 13 is directed to a system for classifying documents that includes a document input for entering an unclassified document, a document storage memory, and a controller coupled to the document input and the document storage memory. The controller is programmed to classify documents into a plurality of classes by identifying source documents of each of the plurality of classes. The controller is further programmed to generate a classification theme score categorizing documents into classes and classifying the document into one of the plurality of classes when an unclassified theme score is substantially similar to the classification theme score. The steps that the controller is programmed to perform are similar to those of claim 1. Therefore, the Appellant respectfully requests the Board to reconsider the rejection of claim 13 for the same reasons set forth above with respect to claim 1.

Claim 14 is also believed to be independently patentable since it further restricts claim 14 and recites that the document input comprises the internet. This is not taught or suggested in the Examiner's Handbook.

Claim 15 is also believed to be independently patentable since the document input is recited as comprising a scanner. This is not taught or suggested in the Examiner's Handbook.

Claim 16 is dependent from claim 13 and recites that the controller is programmed to identify source documents for each of a plurality of new classes, generates new class theme scores and reclassifies the documents. This is not taught or suggested in the Examiner's Handbook.

Claim 17 further recites that the controller is programmed to assign a weight to sections of an unclassified document. This is not taught or suggested in the Examiner's Handbook. Therefore, claim 17 is also believed to be independently patentable.

Claim 18 is believed to be independently patentable as it further recites that the controller is programmed to classify documents into a subclass. This is not taught or suggested by the Examiner's Handbook.

Appellant respectfully requests the Board to reverse the Examiner's rejection.

**IX. Appendix**


A copy of each of the claims involved in this appeal, namely claims 1-18 is attached hereto as Appendix A.

**X. Conclusion**

For the foregoing reasons, Appellant respectfully requests that the Board direct the Examiner in charge of this examination to withdraw the rejections.

Please charge any fees required in the filing of this appeal to deposit account 06-1510.

Respectfully submitted,

  
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## APPENDIX

1. A method for classifying a document using a classification system comprising the steps of:

defining a plurality of classes;

identifying source documents of each of said plurality of classes;

generating a classification theme score for each of said classes from the source documents for each of the plurality of classes;

entering an unclassified document into the system;

generating an unclassified document theme score corresponding to said unclassified document; and

classifying the unclassified document into one of said plurality of classes when the unclassified document theme score is substantially equal to the classification theme score.

2. A method as recited in claim 1 further comprising the steps of reviewing documents in each of said plurality of classes;

determining misclassified documents; and

assigning a theme score to the misclassified documents.

3. A method as recited in claim 1 further comprising the steps of weighting a predetermined section of the unclassified document.

4. A method as recited in claim 3 wherein said predetermined section comprises one from the group of an abstract; an international classification; a U.S. classification, claims section and a title.

5. A method as recited in claim 1 further comprising the step of forming a first and second subclass from a class.



6. A method as recited in claim 5 wherein said step of forming a first and second subclass comprises identifying a selected group of related documents from said class.

7. A method as recited in claim 1 further comprising reclassifying a plurality of classes into a plurality of new classes by:

identifying source documents for each of said plurality of new classes;

generating a respective plurality of new class theme scores for each of said plurality of new classes;

reclassifying documents within said plurality of classes into the plurality of new classes when a classified document theme score is substantially similar to one of respective new class theme scores.

8. A classification system comprising:

establishing a plurality of classes and a plurality of subclasses;

identifying source documents of each of said plurality of classes and said plurality of subclasses;

generating a classification theme score for each class and each subclass in response to the source documents;

entering an unclassified document into the system;

generating an unclassified theme score for the unclassified document; and

classifying the document into one of said plurality of classes when the unclassified document theme score is substantially equal to the classification theme score.

9. A method as recited in claim 8 further comprising the steps of reviewing documents in said class;

determining misclassified documents; and

assigning a theme score to the misclassified documents

10. A method as recited in claim 8 further comprising the steps of weighting a predetermined section of the unclassified document.

11. A method as recited in claim 10 wherein said predetermined section is one from the group of an abstract; an international classification; a U.S. classification, claims section and a title.

12. A method as recited in claim 1 further comprising reclassifying a plurality of classes into a plurality of new classes by:

identifying source documents for each of said plurality of new classes;

generating respective new class theme scores;

reclassifying documents with said plurality of classes into the plurality of new classes when the classified document theme score is equal to one of the respective new class theme scores.

11. A method as recited in claim 10 wherein said predetermined section is one from the group of an abstract; an international classification; a U.S. classification, claims section and a title.

12. A method as recited in claim 1 further comprising reclassifying a plurality of classes into a plurality of new classes by:

identifying source documents for each of said plurality of new classes;

generating respective new class theme scores;

reclassifying documents with said plurality of classes into the plurality of new classes when the classified document theme score is equal to one of the respective new class theme scores.

13. A system for classifying documents comprising:

a document input for entering an unclassified document;

a document storage memory;

a controller coupled to said document input and document storage memory said controller programmed to classify documents into a plurality of classes by identifying source documents of each of said plurality of classes, generating a classification theme score categorizing documents into said classes, and classifying the document into one of said plurality of classes when an unclassified document theme score is substantially similar to the classification theme score.

14. A system as recited in claim 13 wherein said document input comprises the Internet.

15. A system as recited in claim 13 wherein said document input comprises a scanner.

16. A system as recited in claim 13 wherein said controller is programmed to identify source documents for each of a plurality of new classes;

generate respective new classification theme scores; and

reclassify documents with said plurality of classes into the plurality of new classes when a document theme score is substantially similar to the new class theme score.

17. A system as recited in claim 13 wherein said controller is programmed to assign a weight to sections of an unclassified document.

18. A system as recited in claim 13 wherein said controller is programmed to classify documents into a subclass.